NIGHTSHADE CONTROL IN DRY EDIBLE BEANS

R. G. Wilson, J. A. Smith, C. D. Yonts, and E. D. Kerr
University of Nebraska Panhandle Research and Extension Center
Scottsbluff, NE 69361

Three nightshade species; hairy (Solanum sarrachoides Sendt.), black (Solanum nigrum L.) and cutleaf (Solanum triflorum Nutt.) have been reported to interfere with dry edible bean growth in Nebraska. In a survey of the dry edible bean growing regions conducted during the 1990 growing season only hairy and black nightshade were reported as problems. Hairy nightshade was more prevalent in the Panhandle while black nightshade was common in the southwestern portion of the state.

In a three year study conducted at the Panhandle Research and Extension Center late season weed density in dry edible bean fields was correlated with row spacing. Weed density increased as row spacing increased from 25 to 101 cm. Weed density was also correlated with bean variety with late season weed density greater in areas planted to the determinate variety Agate as compared to the indeterminate variety Pinto III.

Alachlor, EPTC, ethalfluralin, imazethapyr, metolachlor, and trifluralin applied and incorporated into the soil before bean planting differed in their ability to control hairy nightshade. Imazethapyr and a combination of EPTC plus ethalfluralin provided the most consistent hairy nightshade control. Acifluorfen, bentazon, and imazethapyr applied postemergence to dry edible beans, were also evaluated for hairy nightshade control. Bentazon and imazethapyr provided 70 to 85% hairy nightshade control but control was not as consistent as that obtained from preplant applied herbicides.